

## **PERMIT CHECK LIST**

**The following people have reviewed the permit:**

Reviewing Permitting Engineer: \_\_\_\_\_

Air Inspector: \_\_\_\_\_

Air Compliance Manager: \_\_\_\_\_

Date: September 23, 2011

Source Name: NASA GSFC Wallops Flight Facility Registration No.: 40217 Id. No.: 51-001-00005

Source Location: Main Base Facility, Wallops Island, Virginia

Mail Address: Code 250.W, Wallops Island, Virginia 23337

Source Status: \_\_\_\_\_ Greenfield ☒ Currently operating

Source Classification: \_\_\_\_\_ Minor ☒ SynMinor \_\_\_\_\_ State Major \_\_\_\_\_ PSD Major \_\_\_\_\_ TV Major

Permit Action: shutdown and removal of 3 Cleaver-Brooks boilers (D008-01, D008-02A and D008-03) as well as the cleaning and eventual removal of the #6 residual oil tanks (D-102 and D-103).

☒ **Inspector Contacted Consulted**

### **Permit Action Program:**

\_\_\_\_\_ NSR ☒ SOP \_\_\_\_\_ TV \_\_\_\_\_ Maj HAP \_\_\_\_\_ General

### **Permit Action Type:**

\_\_\_\_\_ New / Article 6 Modification (delete one) ☒ Significant Amendment

\_\_\_\_\_ Minor Amendment/Modification

Y (Y/N) Permit Includes All Emission Units at Source.

Y (Y/N) Permit Allows Source to avoid Title V/MACT/etc.

After this permit, source is ☒ Synthetic minor (SM)  
(NO<sub>x</sub> and VOC Pollutants)

### **Permit Application Review**

\_\_\_\_\_ Permit application submitted, or ☒ Letter Request

Application Received Date: September 16, 2011

Application Complete Date: September 28, 2011

Permit Deadline Date: December 27, 2011

☒ Document Certification Form received

n/a Confidential information with sanitized copy.

n/a Copy of letter from local official for greenfield, or major modified sources

n/a Copy of letter sent to FLM if applicable. (Comments)

n/a Notification of Affected State(s)

This permit supersedes permit dated July 11, 2011.

### **Regulatory Review**

BACT Determination (check one):

\_\_\_\_\_ [Control Strategy/Equipment] @ \_\_\_\_\_ % efficiency for the control of \_\_\_\_\_ meets BACT, or

☒ TV/SOP/BACT not applicable. (Explain) Amendment

Y (Y/N) NSPS/MACT/NESHAPS Applicability: If Y, Subpart(s):

Dc, IIII, JJJJ NSPS ZZZZ MACT \_\_\_\_\_ NESHAPS

N (Y/N) Existing Rules (9 VAC 5 Chapter 40) Applicability: If Y, Rule(s):

Toxic Pollutants (check one):

\_\_\_\_\_ Exempt, or \_\_\_\_\_ in compliance with 9 VAC 5-60-220, or ☒ not evaluated

Modeling (check one):

\_\_\_\_\_ Attached (including background monitors), or

## Regulatory Review (cont.)

☐ Copy of approval letter from modeling section,

☒ No modeling required by agency policy (< modeling significance levels, etc.)

Site Suitability:

☒ Site suitable from an air pollution standpoint, inspection date 8/20/08,

☐ Calculation sheet(s) attached

☐ (Y/N) NSR Netting                      Comments (Explain Permit History):

☐ (Y/N) (CAM) Compliance Assurance Monitoring Applicable

Permit includes: ☐ Stack Testing   ☐ CEM   ☐ VEE by source

## Public Participation

☐ (Y/N) Public Noticed. If yes, Public Notice Date:

☐ (Y/N) Public Notice Comments. If yes, number and nature of comments:

☐ (Y/N) Public Hearing. If yes, Public Hearing Date:

## EPA Review

☐ (Y/N) EPA Review. If yes, Date proposed permit sent to EPA:

☐ (Y/N) EPA Comments. If yes, give a brief summary \_\_\_\_\_.

## Comments:

Changes to the permit are as follows:

- Moving D008-02A, D008-01 and D008-03, MB-D102-01 and MB-D103-01 from the “to be phased out” section of the equipment list to the “removed” section
- Removed conditions related to the equipment listed above (previous permit conditions #7, 9, parts of 12, 15, 16, 22, 23, 25a, 25b. and 27.
- Adjusting the facility wide emission limits to account for removal of the D-8 boilers. (see table below)

Annual Emissions (from 7/11/11 permit calculations spreadsheet)						
Pollutants	D-8 Boilers	All Generators	Small Boilers	Misc. Units	Total (old permit facility-wide limits, with D-8 boilers)	Total (new permit facility-wide limits, without D-8 boilers)
TSP	4.66	0.82	1.04	4.00	10.52	5.86
PM10	4.66	0.73	0.79	4.00	10.18	5.52
SO2	39.25	0.02	0.00	0.00	39.27	0.02
CO	3.75	31.76	6.92	0.00	42.43	38.68
NOX	27.50	50.71	15.13	0.00	93.33	65.83
VOC	0.80	1.41	0.79	43.00	46.00	45.20

This action will be processed as a significant amendment to the SOP due to changing of the facility wide emission limits.

A public notice period is required.

After review of the draft, comments from the facility requested that the paint booths be offered additional flexibility with regard to the use of spray cans as well as guns for both booths. Since there is no throughput limit on paint, and the only emission limits are identical for both paint shops. Compliance determined by tracking the use of all coatings and solvents and calculating the VOC emissions therefore allowing the flexibility does not increase emissions. The only change in the permit from this request is in the equipment list.

**Regulatory Review (cont.)**

**Final Recommendation:** Recommend Approval.

Environmental Engineer's Signature: \_\_\_\_\_

Air Permit Manager's Signature: \_\_\_\_\_



# *COMMONWEALTH of VIRGINIA*

## *DEPARTMENT OF ENVIRONMENTAL QUALITY*

### TIDEWATER REGIONAL OFFICE

Doug Domenech  
Secretary of Natural Resources

5636 Southern Boulevard, Virginia Beach, Virginia 23462  
(757) 518-2000 Fax (757) 518-2009  
[www.deq.virginia.gov](http://www.deq.virginia.gov)

David K. Paylor  
Director

DRAFT - October 3, 2011

Ms. Carolyn Turner  
Associate Chief, Medical and Environmental Management  
Attn: 250.W  
NASA GSFC Wallops Flight Facility  
Wallops Island, Virginia 23337

Location: Accomack County  
**Registration No.: 40217**  
AFS Id. No.: 51-001-00005

Dear Ms. Turner:

Attached is a significant amendment to your state operating permit to operate NASA Goddard Space Flight Center, Wallops Flight Facility – Main Base in accordance with the provisions of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit supersedes your permit dated July 11, 2011.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

The Department of Environmental Quality (DEQ) deemed the application complete on September 28, 2011, and has determined that the application meets the requirements of 9 VAC 5-80-990 A for a significant amendment to a state operating permit. The Department solicited written public comments by placing a newspaper advertisement in the **Eastern Shore Times on xxxx xx, 2011**. The required comment period, provided by 9 VAC 5-80-1170 D, expired on **xxxxxx xx, 2011**.

This permit approval to operate shall not relieve NASA Goddard Space Flight Center, Wallops Flight Facility – Main Base of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. 9 VAC 5-170-200 provides that you may request direct consideration of the decision by the Board if the Director of the DEQ made the decision. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director  
Department of Environmental Quality  
PO Box 1105  
Richmond, VA 23218-1105

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

Some of the generators at your facility are affected facilities under 40 CFR 60, New Source Performance Standards (NSPS), Subpart IIII, (*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*) or Subpart JJJJ (*Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*) and 40 CFR 63, Maximum Achievable Control Technology (MACT), Subpart ZZZZ, (*National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*), and are therefore subject to owner/operator requirements of the NSPS and MACT. In summary, the units are required to comply with certain federal emission standards and operating limitations over their useful life. The Department of Environmental Quality (DEQ) advises you to review the linked NSPS and MACT Regulations to ensure compliance with applicable emission and operational limitations. As the owner/operator you are also responsible for monitoring, notification, reporting, and recordkeeping requirements of each NSPS and MACT. Notifications shall be sent to EPA, Region III. Notifications shall be sent to:

Associate Director  
Office of Air Enforcement (3AP10)  
U.S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

If you have any questions concerning this permit, please contact Kelly R. Giles by phone at (757) 518-2155 or by e-mail at [kelly.giles@deq.virginia.gov](mailto:kelly.giles@deq.virginia.gov).

Sincerely,

Troy D. Breathwaite  
Air Permit Manager

tdb/krg/40217\_020\_11\_SOPsigamdmod\_NASA GSFC WFF Main Base.docx

Attachment: Permit

See link below for web address of all 40 CFR Regulations:

[http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=27d0dad4dd3d4c1969aad205b798e315&c=ecfr&tpl=/ecfrbrowse/Title40/40tab\\_02.tpl](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=27d0dad4dd3d4c1969aad205b798e315&c=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl)

cc: Director, OAPP (electronic file submission)  
Manager, Data Analysis (electronic file submission)  
Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic file submission)  
Manager/Inspector, Air Compliance



# *COMMONWEALTH of VIRGINIA*

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David K. Paylor  
Director

### **STATIONARY SOURCE PERMIT TO OPERATE**

**This permit includes designated equipment subject to  
New Source Performance Standards (NSPS).**

**This permit includes designated equipment subject to  
National Emission Standards for Hazardous Air Pollutants (MACT).**

This permit supersedes your permit dated July 11, 2011.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia  
Regulations for the Control and Abatement of Air Pollution,

NASA Goddard Space Flight Center  
Wallops Flight Facility – Main Base  
Accomack County, Virginia 23337-5099  
**Registration No.: 40217**  
AFS Id. No.: 51-001-00005

is authorized to operate

a space flight center

located at

NASA Goddard Space Flight Center, Wallops Flight Facility  
Main Base Facility

in accordance with the Conditions of this permit.

Approved on: **DRAFT - September 27, 2011**

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Maria R. Nold  
Regional Director

Permit consists of 10 pages.  
Permit Conditions 1 to 28.

## **INTRODUCTION**

1. This permit approval is based on the permit application dated February 24, 1992, March 12, 1994, January 20, 1998, July 19, 2001, October 1, 2003, February 25, 2004, May 20, 2004, September 2, 2004, February 10, 2005, March 21, 2008, November 7, 2008 and December 3, 2010, including amendment information and supplemental information dated March 24, 1992, April 14, 1994, April 30, 1994, August 15, 2001, May 29, 2002, August 9, 2002, August 29, 2002, October 30, 2003, November 25, 2003, January 5, 2004, February 25, 2004, March 10, 2004, August 4, 2004, September 10, 2004, November 19, 2004, December 13, 2004, April 11, 2005, April 2, 2008, December 16, 2008, January 5, 2009, March 17, 2011, April 4, 2011, April 5, 2011, April 26, 2011, September 16, 2011, September 28, 2011 and October 27, 2011. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-10 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

## **PROCESS REQUIREMENTS**

2. **Equipment List** - Equipment at this facility consists of the following:

<b>Equipment permitted prior to the date of this permit</b>				
<b>Reference No.</b>	<b>Equipment Description</b>	<b>Rated Capacity</b>	<b>Federal Requirements</b>	<b>Original Permit Date</b>
Various	LPG-Propane fired small steam boilers and hot-water heaters to replace the distillate oil fired units currently on-site.	< 3.0 mmBtu/hr	None	07-11-2011
Various	LPG-Propane fired emergency generators to replace distillate oil fired generators currently on-site	< 90 KW or 140 HP engines	None	07-11-2011
D008-4	Caterpillar Diesel Non-Emergency Generator, C175-16, 2008	3000 KW	40 CFR 60, Subpart IIII 40 CFR 63 Subpart ZZZZ	02-05-2009
D-050A	Onan Diesel Emergency Generator, 500 DFGA	900 HP, 500 KW	40 CFR 63 Subpart ZZZZ	Unknown
---	Various electrical generators and emergency fire suppression water pumps	< 4.7 MMBtu/hr (each)	40 CFR 63 Subpart ZZZZ	Various
---	Various horizontal aboveground fuel oil storage tanks	< 10,000 gal (each)	None	Various

<b>Equipment permitted prior to the date of this permit (cont'd)</b>				
<b>Reference No.</b>	<b>Equipment Description</b>	<b>Rated Capacity</b>	<b>Federal Requirements</b>	<b>Original Permit Date</b>
---	Various underground fuel oil storage tanks	< 20,000 gal (each)	None	Various
---	Various parts cleaning washers	< 12.55 sq ft (each)	None	Various
MB-N159-09	One (1) – Paint shop (ventilated spray booth) located in Bldg N-159	Max. of 72 lbs/yr from aerosol cans or 0.5 gal/hr from spray guns	None	10-24-2000
MB-F016-01	One (1) – Paint shop (ventilated spray booth and work table) located in Bldg F-16	Max. of 72 lbs/yr from aerosol cans or 0.5 gal/hr from spray guns	None	10-14-1994
MB-N159-11 MB-N159-12	Various work/maintenance shops (W144, W129)	Not Applicable	None	Unknown
MB-F016-03	One (1) – Woodworking shop located in Bldg F-16	Not Applicable	None	09-21-1995
---	Various lab exhaust hoods – ACS Lab in Bldg F-10, Room 109 Lab in Bldg X-15, Analytical Labs in Bldg F-160, Room E101 Lab in Bldg N-159	Various cfm speeds	None	Various
MB-F010-03 MB-F010-04 MB-F020-04	Welding operations located in Bldgs F-10 and F-20	375 lbs of rods & 25 lbs wire/yr	None	07-29-1993
Room W301	One (1) – Soldering workstation located in Bldg F-10	10 lbs solder/yr	None	04-29-2002
FOTW Plant	One (1) – Deacidification unit for pH neutralization (used in the FOTW sewage waste treatment plant)	Not Applicable	None	Unknown
---	Photo-mounting operations (ventilated) located in Bldg E-2	Sprayed adhesive applied to various cardboard stock	None	Unknown

<b>Equipment Exempt from Permitting</b>				
<b>Reference No.</b>	<b>Equipment Description</b>	<b>Rated Capacity</b>	<b>Exemption Citation</b>	<b>Exemption Date</b>
---	Interior aircraft upgrades	Sprayed adhesive applied to interior aircraft panels	9 VAC 5-80-1320 E.1 and 9 VAC 5-60-300 C.1 and 2	11/21/08

<b>Equipment Removed by this Permit:</b>				
<b>Reference No.</b>	<b>Equipment Description</b>	<b>Rated Capacity</b>	<b>Federal Requirements</b>	<b>Original Permit Date</b>
D008-02A	One (1) – Distillate/residual oil-fired Cleaver Brooks boiler	20.9 mmBtu/hr	NSPS Subpart Dc	
D008-01 & D008-03	Two (2) – Distillate/residual oil-fired Cleaver Brooks boilers	29.3 mmBtu/hr (each)	NSPS Subpart Dc	04-15-1992 07-01-1994
MB-D102-01 MB-D103-01	Two (2) – Vertical aboveground #6 residual oil storage tanks	120,000 gal (each)	None	Unknown

<b>Equipment to be Phased Out:</b>				
<b>Reference No.</b>	<b>Equipment Description</b>	<b>Rated Capacity</b>	<b>Exemption Citation</b>	<b>Exemption Date</b>



Various	Various distillate oil-fired steam boilers and hot-water heaters	< 3.0 mmBtu/hr (each)	None	Various
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Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.

(9 VAC 5-80-850 and 9 VAC 5-80-1180 D 3)

3. **Monitoring Devices** - The non-emergency generator (D008-04) shall be equipped with a non-resettable hour meter. The hour meter shall be provided with adequate access for inspection and shall remain installed on the generator unit at all times.  
 (9 VAC 5-80-850 and 40 CFR 60.4209(a))

### **OPERATING LIMITATIONS**

4. **Emergency Generators - Operating Hours** - Each emergency generator shall not operate more than 500 hours per year, including periodic equipment maintenance check and operational training, calculated monthly as the sum of each consecutive 12-month period. For each generator that is applicable to any of the following regulations: NSPS IIII, NSPS JJJJ or MACT ZZZZ; operation for maintenance checks and readiness is limited to 100 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
 (9 VAC 5-80-850, 60.4211(e) and 63.6640(f)(ii))
5. **Emergency Generators – Use** - The emergency generators are to be used ONLY for the purpose of providing power at the facility during interruption of service from the normal power supplier, periodic maintenance, testing, and operational training.  
 (9 VAC 5-80-850 and 9 VAC 5-170-160)
6. **Non-Emergency Generator - Operating Hours** – The non-emergency generator (D008-04) shall not operate more than 500 hours per year, calculated monthly as the sum of each consecutive 12-month period. Operation for maintenance checks and readiness is limited to 100 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
 (9 VAC 5-80-850, 60.4211(e) and 63.6640(f)(ii))
7. **Fuel** - The approved fuels for the small boilers and heaters (< 3 mmBtu/hr) and the generators and pumps are distillate oil and liquefied petroleum gas (LPG). A change in the fuel may require a permit to modify and operate.  
 (9 VAC 5-80-850)

8. **Fuel Throughput** – All the small boilers and heaters (< 3 mmBtu/hr), combined, shall consume no more than 1,350,000 gallons per year liquefied petroleum gas (LPG), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-850)

9. **Fuel Throughput** – The generators and pumps, combined, shall consume no more than 100,000 gallons per year distillate oil and 150,000 gallons per year liquefied petroleum gas (LPG), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-850)

10. **Fuel Specification** - The distillate oil and LPG shall meet the specifications below:

DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil  
Maximum sulfur content per shipment: 0.0015%

Liquefied Petroleum Gas (LPG), including butane and propane, which meets ASTM specification D1835.

(9 VAC 5-80-850, 9 VAC 5-80-1180, and 9 VAC 5-50-410 (60.4207))

11. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of fuel oil. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier;
- b. The date on which the distillate oil was received;
- c. The volume of distillate oil delivered in the shipment;
- d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for numbers 1 and 2 fuel oil;
- e. The sulfur content of the distillate oil;

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition number 10. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.

(9 VAC 5-80-850, 9 VAC 5-80-1180, and 9 VAC 5-50-410)

12. **Equipment Installation or Replacement** – In the event that any boiler, heater, generator, or pump is replaced with another unit, or an additional unit(s) is added at or after the date of the issuance of this permit, the permittee shall notify the DEQ Tidewater Regional Office prior to such an event occurring. The notification shall include the unit being added, whether or not the new unit is replacing another unit, the unit being replaced, and the size/rated capacity and fuel requirements of each affected unit. A change in equipment may require a permit to modify and operate.  
(9 VAC 5-80-850)

## **EMISSION LIMITS**

13. **Emission Limits** – Emissions from the combined operation of all the small boilers and heaters shall not exceed the limits specified below:

<b>Pollutant</b>	<b>Tons/yr (combined)</b>
Particulate Matter	1.0
PM-10	0.8
Nitrogen Oxides (as NO <sub>2</sub> )	15.1
Carbon Monoxide	6.9
Volatile Organic Compounds (VOC)	0.8

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Condition numbers 7, 8, 10, 11, 18, and 19.  
 (9 VAC 5-80-850, 9 VAC 5-80-1180, and 9 VAC 5-50-260)

14. **Emission Limits** – Emissions from the operation of the generators and pumps shall not exceed the limits specified below:

<b>Pollutant</b>	<b>Tons/yr (combined)</b>
Particulate Matter	0.8
PM-10	0.7
Nitrogen Oxides (as NO <sub>2</sub> )	50.7
Carbon Monoxide	31.8
Volatile Organic Compounds (VOC)	1.4

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Condition numbers 3 - 6, 7, 9, 10, 11, 18, and 19.  
 (9 VAC 5-80-850, 9 VAC 5-80-1180, and 9 VAC 5-50-260)

15. **Emission Limits** – Emissions from the operation of the two (2) paint shop spray booths (located in Buildings N-159 and F-16) shall each not exceed the limits specified below:

Pollutant	Tons/yr (combined)
Volatile Organic Compounds (VOC)	10.0

Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined by the calculation of VOC emissions from coatings, thinners, and solvents used for the paint/coating operations in each spray booth as stated in Condition number 19.c and 19.d.  
(9 VAC 5-80-850 and 9 VAC 5-170-160)

16. **Facility wide Emission Limits** – Emissions from the operation of the aerospace research and technology facility (Main Base Facility) shall not exceed the limits specified below:

Pollutant	Tons/yr (combined)
Particulate Matter	5.9
PM-10	5.5
Nitrogen Oxides (as NO <sub>2</sub> )	65.8
Carbon Monoxide	38.7
Volatile Organic Compounds (VOC)	45.2

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 3 - 12 and 17 - 19.  
(9 VAC 5-80-850, 9 VAC 5-170-160, and 9 VAC 5-50-260)

17. **HAP Emission Limits** - Hazardous air pollutant (HAP) emissions, as defined by §112(b) of the Clean Air Act, from the stationary source shall not exceed 10 tons per year of any individual HAP or 25 tons per year of any combination, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-850)

18. **Visible Emission Limit** - Visible emissions from all emission units shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.  
(9 VAC 5-80-850, 9 VAC 5-80-1180, and 9 VAC 5-50-80)

## **RECORDS**

19. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:
- a. Annual throughput of distillate oil and LPG for the small boilers and heaters, combined, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;
  - b. Annual throughput of distillate oil and LPG for the generators and pumps, combined, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;
  - c. Monthly VOC emissions calculations for the paint/coating operations in each spray booth sufficient to demonstrate compliance with the emission limits in Condition 15. The records shall reflect VOC emissions from the spray booth paint/coating operations, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;
  - d. Material Safety Data Sheets (MSDS), Certified Product Data Sheets (CPDS), or other vendor information as approved by DEQ showing the VOC content and solids content for the non-thinned coatings, thinners, and solvents used in the two (2) spray booth paint/coating operations;
  - e. Annual hours of operation of the generator (D008-04), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;
  - f. Annual calculated emissions to verify compliance with the total HAP and individual HAP emission limitations in Condition 17. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period; and
  - g. All fuel supplier certifications.
- These records shall be available for inspection by the DEQ and shall be current for the most recent five years.  
(9 VAC 5-80-850, 9 VAC 5-80-1180, and 9 VAC 5-50-50)
20. **Emission Testing** - The facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports, including safe sampling platforms and access, shall be provided when requested at the appropriate locations.  
(9 VAC 5-80-880 and 9 VAC 5-80-850)

## **GENERAL CONDITIONS**

21. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:
- To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
  - To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
  - To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
  - To sample or test at reasonable times.
- For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.  
(9 VAC 5-170-130 and 9 VAC 5-80-850)
22. **Record of Malfunctions** – The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.  
(9 VAC 5-20-180 J and 9 VAC 5-80-850)
23. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Director, Tidewater Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone, or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Director, Tidewater Regional Office in writing.  
(9 VAC 5-20-180 C and 9 VAC 5-80-850)
24. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.  
(9 VAC 5-20-180 I and 9 VAC 5-80-850)
25. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.  
(9 VAC 5-50-20 E and 9 VAC 5-80-850)

**26. Permit Suspension/Revocation** - This permit may be revoked if the permittee:

- a. Knowingly makes material misstatements in the permit application or any amendments to it;
- b. Fails to comply with the terms or conditions of this permit;
- c. Fails to comply with any emission standards applicable to a permitted emissions unit;
- d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
- e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time that an application for this permit is submitted; or
- f. Fails to comply with the applicable provisions of Articles 6, 8, and 9 of 9 VAC 5 Chapter 80.  
(9 VAC 5-80-1010)

**27. Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, Tidewater Regional Office of the change of ownership within 30 days of the transfer.  
(9 VAC 5-80-940)

**28. Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.  
(9 VAC 5-80-860 D)

## **DRAFT PERMIT APPROVAL FORM**

Department of Environmental Quality  
Tidewater Regional Office  
5636 Southern Blvd.  
Virginia Beach, Virginia 23462

### **Instructions:**

The "Draft Permit Approval Form" provides the owner or certified company official an opportunity to accept or suggest appropriate changes to a draft permit. If a signed form is not received within one (1) week of the date of receipt of the draft permit, DEQ will assume that the draft permit is considered acceptable and will proceed with processing the permit.

**Please check the applicable statement(s) below after thoroughly reviewing the draft permit.**

**Scanned forms (with signatures) may be returned to [kelly.giles@deq.virginia.gov](mailto:kelly.giles@deq.virginia.gov) or [troy.breathwaite@deq.virginia.gov](mailto:troy.breathwaite@deq.virginia.gov).**

**If scanning is not available, please fax to 757-518-2009, Attention: Ms. Kelly R. Giles or Mr. Troy D. Breathwaite**

\_\_\_\_\_ The owner or certified company official agrees with the conditions of the draft permit dated \_\_\_\_\_ . Please proceed to issue the permit with no change.

\_\_\_\_\_ The owner or certified company official finds condition number(s) \_\_\_\_\_ of the draft permit dated \_\_\_\_\_ unacceptable.

\_\_\_\_\_ The suggested changes are attached for your consideration.

\_\_\_\_\_ The owner or certified company official requests further discussion with DEQ regarding the above referenced condition(s).

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Facility: \_\_\_\_\_

Date: \_\_\_\_\_